

Cell Suspension Volume Calculator Table

CRITICAL!

Consult the Single Cell Protocols Cell Preparation Guide and Guidelines for Optimal Sample Preparation flowchart (Documents CG00053 and CG000126) for more information on preparing cells for use in this Protocol.

Volume of Cell Suspension Stock per reaction (µl) Volume of Nuclease-Free Water per reaction (µl)											
Cell Stock Concentration (Cells/µl)	Targeted Cell Recovery										
	500 cells	1000 cells	2000 cells	3000 cells	4000 cells	5000 cells	6000 cells	7000 cells	8000 cells	9000 cells	10000 cells
100	8.7 25.1	17.4 16.4	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
200	4.4 29.5	8.7 25.1	17.4 16.4	26.1 7.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a
300	2.9 30.9	5.8 28.0	11.6 22.2	17.4 16.4	23.2 10.6	29.0 4.8	n/a	n/a	n/a	n/a	n/a
400	2.2 31.6	4.4 29.5	8.7 25.1	13.1 20.8	17.4 16.4	21.8 12.1	26.1 7.7	30.5 3.4	n/a	n/a	n/a
500	1.7 32.1	3.5 30.3	7.0 26.8	10.4 23.4	13.9 19.9	17.4 16.4	20.9 12.9	24.4 9.4	27.8 6.0	31.3 2.5	n/a
600	1.5 32.4	2.9 30.9	5.8 28.0	8.7 25.1	11.6 22.2	14.5 19.3	17.4 16.4	20.3 13.5	23.2 10.6	26.1 7.7	29.0 4.8
700	1.2 32.6	2.5 31.3	5.0 28.8	7.5 26.3	9.9 23.9	12.4 21.4	14.9 18.9	17.4 16.4	19.9 13.9	22.4 11.4	24.9 8.9
800	1.1 32.7	2.2 31.6	4.4 29.5	6.5 27.3	8.7 25.1	10.9 22.9	13.1 20.8	15.2 18.6	17.4 16.4	19.6 14.2	21.8 12.1
900	1.0 32.8	1.9 31.9	3.9 29.9	5.8 28.0	7.7 26.1	9.7 24.1	11.6 22.2	13.5 20.3	15.5 18.3	17.4 16.4	19.3 14.5
1000	0.9 32.9	1.7 32.1	3.5 30.3	5.2 28.6	7.0 26.8	8.7 25.1	10.4 23.4	12.2 21.6	13.9 19.9	15.7 18.1	17.4 16.4
1100	0.8 33.0	1.6 32.2	3.2 30.6	4.7 29.1	6.3 27.5	7.9 25.9	9.5 24.3	11.1 22.7	12.7 21.1	14.2 19.6	15.8 18.0
1200	0.7 33.1	1.5 32.4	2.9 30.9	4.4 29.5	5.8 28.0	7.3 26.6	8.7 25.1	10.2 23.7	11.6 22.2	13.1 20.8	14.5 19.3
1300	0.7 33.1	1.3 32.5	2.7 31.1	4.0 29.8	5.4 28.4	6.7 27.1	8.0 25.8	9.4 24.4	10.7 23.1	12.0 21.8	13.4 20.4
1400	0.6 33.2	1.2 32.6	2.5 31.3	3.7 30.1	5.0 28.8	6.2 27.6	7.5 26.3	8.7 25.1	9.9 23.9	11.2 22.6	12.4 21.4
1500	0.6 33.2	1.2 32.6	2.3 31.5	3.5 30.3	4.6 29.2	5.8 28.0	7.0 26.8	8.1 25.7	9.3 24.5	10.4 23.4	11.6 22.2
1600	0.5 33.3	1.1 32.7	2.2 31.6	3.3 30.5	4.4 29.5	5.4 28.4	6.5 27.3	7.6 26.2	8.7 25.1	9.8 24.0	10.9 22.9
1700	0.5 33.3	1.0 32.8	2.0 31.8	3.1 30.7	4.1 29.7	5.1 28.7	6.1 27.7	7.2 26.6	8.2 25.6	9.2 24.6	10.2 23.7
1800	0.5 33.3	1.0 32.8	1.9 31.9	2.9 30.9	3.9 29.9	4.8 29.0	5.8 28.0	6.8 27.0	7.7 26.1	8.7 25.1	9.7 24.1
1900	0.5 33.3	0.9 32.9	1.8 32.0	2.7 31.1	3.7 30.1	4.6 29.2	5.5 28.3	6.4 27.4	7.3 26.6	8.2 25.6	9.2 24.6
2000	0.4 33.4	0.9 32.9	1.7 32.1	2.6 31.2	3.5 30.3	4.4 29.5	5.2 28.6	6.1 27.7	7.0 26.8	7.8 26.0	8.7 25.1

Grey boxes: Volumes that would exceed the allowable water volume in each reaction
 Yellow boxes: Indicate a low transfer volume that may result in higher cell load variability
 Blue boxes: Optimal range of cell stock concentration to maximize the likelihood of achieving the desired cell recovery target